Claim Amendments

Please amend claims 1, 3, 7-10, 13, 15, 16, and 18-20 as follows:

Please cancel claims 2, 4, 6, 12, 14, 15, 17, and 21 as follows:

Please add new claims 24-27 as follows:

Listing of Claims

1. (currently amended) A method of limiting including eliminating reactive torque transmitted from a set of driven traction wheels to a powertrain during a sudden braking event, comprising:

slipping a drive component comprising a clutch disposed between the traction wheels and the powertrain ~~when~~ during the sudden braking event ~~commences~~, to thereby ~~limit the~~ eliminate an amount of reactive torque at and above a first value of reactive torque transmitted from the traction wheels to the powertrain, said drive component disposed on the traction wheel side of said powertrain, said powertrain comprising a first gear assembly connected to a drive motor;

wherein said clutch is adjusted to slip at a slip level at and above said first value of reactive torque, said adjustment prior to commencement of said sudden braking event.

2. (canceled)

3. (currently amended) The method of claim 1, wherein the

slipping step comprises slipping a plurality of clutch plates when the reactive torque ~~reaches~~ is at and above [[a]] said preset reactive torque value.

4. (canceled)

5. (previously presented) The method of claim 1, wherein the slipping step is commenced in direct response to the reactive torque applied to the drive component.

6. (canceled)

7. (currently amended) The method of claim 1, further comprising:

determining that a sudden braking event is about to occur;

setting [[a]] said slip level of the drive component to [[a]] said first reactive torque value allowing a first level of reactive torque below said first reactive torque value to be transmitted from the traction wheels to the powertrain on a drive motor side of said drive component; and,

setting the slip level of the drive component to a second

reactive torque value when it has been determined that [[a]] said sudden braking event ~~is about to occur~~ has commenced to eliminate an amount of reactive torque at and above said second reactive torque value transmitted from said traction wheels to said powertrain.

8. (currently amended) The method of claim 7, further comprising, after the step of setting the slip level to a second reactive torque value, resetting the slip level of the drive component to the first ~~level~~ value of reactive torque upon completion of said sudden braking event.

9. (currently amended) The method of claim 8, wherein the slipping step comprises interposing a second drive component comprising a slip clutch between the traction wheels and a second gear assembly on the ~~drive~~ traction wheel side of the first gear assembly.

10. (currently amended) A method for controlling a hybrid vehicle powertrain system during a sudden braking event in which reactive torque is produced by braking the vehicle's wheels, comprising the step of ~~limiting~~ eliminating ~~the~~ an amount of reactive torque at and above a preselected reactive torque value transmitted from

the wheels to the powertrain by slipping a drive component comprising a slip clutch disposed on the wheel side of [[a]] said powertrain, said power train comprising a gear assembly connected to a drive motor ~~comprising the hybrid vehicle~~;

wherein said slip clutch is adjusted to slip at and above said preselected value of said reactive torque, said step of adjusting taking place prior to said sudden braking event.

11. (original) The method of claim 10, wherein the ~~torque-limiting step is performed by slipping a clutch connecting the wheels with the powertrain~~ slip clutch is further adjusted to slip at and above a second value of said reactive torque upon commencement of said sudden braking event.

12. (canceled)

13. (currently amended) A method for controlling a hybrid vehicle powertrain system during a sudden braking event in which excessive driveline torque is produced by rapidly braking the vehicle's wheels, comprising the steps of:

transmitting ~~negative~~ positive torque from said powertrain

to the wheels through a driveline component comprising a slip clutch ~~to the powertrain~~ during normal driving conditions;

~~limiting~~ eliminating ~~the~~ an amount of negative torque at or above a preselected level of negative torque transmitted from the wheels through the driveline component to the powertrain during a sudden braking event by slipping said slip clutch at and above said preselected level of negative torque caused by braking force applied to the wheels, said driveline component disposed on the wheel side of a gear assembly connected to a drive motor;

wherein said slip clutch is adjusted to slip at and above said preselected level of negative torque prior to and during said sudden braking event.

14. (canceled)

15. (canceled)

16. (currently amended) A drive system for a vehicle, comprising:

a powertrain including at least one electric drive motor, at least one drive wheel; and,

a driveline including a slip clutch, the slip clutch disposed on the drive wheel side of a gear assembly connected to a drive motor, the slip clutch connecting the powertrain with the drive wheel, the slip clutch transmitting positive torque from the powertrain to the drive wheel during normal driving conditions but allowing slipping during a sudden braking event to limit the amount of torque transmitted from the drive wheel to the powertrain caused by braking force applied to the drive wheel;

wherein the slip clutch includes a plurality of friction plates and springs for biasing the plates into engagement with each other.

17. (canceled)

18. (currently amended) The drive system of claim 16 ~~17~~, wherein the biasing force of the springs is adjustable.

19. (currently amended) The drive system of claim 16 ~~17~~, further comprising a sensor for sensing the commencement of a sudden braking event, and a controller responsive to the sensor for adjusting the biasing force of the springs whereby to adjust the

amount of torque transmitted from the wheels to the powertrain.

20. (currently amended) A hybrid vehicle drive system, comprising:

an internal combustion engine connected to a first gear assembly;

an electric drive motor connected to a second gear assembly;

at least one traction wheel;

a driveline connecting the traction wheel with the combination of the internal combustion engine and the electric drive motor;

a vehicle braking system for applying a brake force to the traction wheel during a braking event; and,

a control system including at least one slip clutch disposed in said driveline on the traction wheel side of said first and second gear assemblies for controlling the torque transmitted from the traction wheel through the driveline during a sudden

braking event;

wherein the slip clutch includes a plurality of clutch plates and springs for biasing the plates into engagement with each other.

21. (canceled)

22. (original) The drive system of claim 20, wherein the amount of torque transmitted by the slip clutch from the drive wheel to the driveline is adjustable.

23. (original) The drive system of claim 22, wherein the control system comprises:

at least one sensor producing a signal indicting the occurrence of a sudden braking event, and a controller automatically responsive to the sensor signal for adjusting the slip clutch.

24. (new) The method of claim 1, wherein the clutch comprises a slip clutch comprising a plurality of friction plates and springs for biasing the plates into engagement with each other.

25. (new) The method of claim 24, wherein the biasing force of the springs is adjustable.

26. (new) The method of claim 24, further comprising a sensor for sensing the commencement of said sudden braking event, and a controller responsive to the sensor for adjusting the biasing force of the springs whereby to adjust the slip level of said slip clutch.

27. (new) The method of claim 1, wherein the powertrain comprises an electric motor.

28. (new) The method of claim 1, wherein said clutch comprises an electromagnetic clutch.

29. (new) The method of claim 10, wherein the slip clutch comprises a plurality of friction plates and springs for biasing the plates into engagement with each other.

30. (new) The method of claim 13, wherein the slip clutch comprises a plurality of friction plates and springs for biasing the plates into engagement with each other.